What Is Claimed Is:

- 1. A prism sheet having a concave pentagonal structure, the prism sheet comprising:
- 5 a base layer; and

10

a prism array disposed on and supported by the base layer, the prism array consisting of a plurality of prisms aligned in parallel and one beside the other,

wherein the transversal cross-section of each prism has a shape of concave pentagon, which is symmetrical about a vertical line passing the apex, and

wherein the interior angle α of the apex is $30^{\circ} \leq \alpha \leq 120^{\circ}$, the exterior angle β formed by the upper slant side and the lower slant side is $\beta < 180^{\circ}$, the interior angle γ of the lower vertex formed by the lower slant side and the base is $5^{\circ} \leq \gamma \leq 85^{\circ}$, and the length w of the base is $30\mu m \leq w \leq 100\mu m$.

- 2. A prism sheet according to claim 1, wherein the interior angle α of the apex is $40^{\circ} \le \alpha \le 100^{\circ}$, the exterior angle β formed by the upper slant side and the lower slant side is $160^{\circ} \le \beta \le 179^{\circ}$, and the interior angle γ of the lower vertex formed by the lower slant side and the base is $30^{\circ} \le \gamma \le 60^{\circ}$.
- 3. A prism sheet according to claim 1 or 2, wherein the length w of the base is $40\mu m \le w \le 60\mu m$.
 - 4. A prism sheet having a concave pentagonal structure, the prism sheet

comprising:

5

a base layer; and

a prism array disposed on and supported by the base layer, the prism array consisting of a plurality of prisms aligned in parallel and one beside the other,

wherein the transversal cross-section of each prism has a shape of concave pentagon, which is symmetrical about a vertical line passing an apex, and wherein the length w of the base is $15\mu m \le w \le 100\mu m$.

- 5. A prism sheet according to claim 4, wherein the interior angle α of the
 10 apex is 30° ≤ α ≤ 120°, the exterior angle β formed by the upper slant side and the lower slant side is β < 180°, and the interior angle γ of the lower vertex formed by the lower slant side and the base is 5°≤ γ ≤ 85°.
- 6. A Prism sheet according to claim 4, wherein the length w of the base is
 50μm, the height h from the base to the apex is 26μm, and the interior angle γ of the lower vertex formed by the lower slant side and the base is 45°, and the interior angle of the apex is 60° ≤ α ≤ 87°.